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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/062,561  | 02/05/2002  | W. Denver Christopher | G2675-907658        | 1930             |
| 181   | 7590        | 05/19/2004            | EXAMINER            |                  |
| MILES & STOCKBRIDGE PC<br>1751 PINNACLE DRIVE<br>SUITE 500<br>MCLEAN, VA 22102-3833 |             |                       | BERKO, RETFORD O    |                  |
|   |             |                       | ART UNIT            | PAPER NUMBER     |
|   |             |                       | 1615                |                  |

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/062,561

Applicant(s)

CHRISTOPHER ET AL.

Examiner

Retford Berko

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/12/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***DETAILED ACTION***

**Acknowledgement:** The Information Disclosure Statement filed September 4, 2002 and on August 22, 2003 is acknowledged.

**Claim Rejections-35 USC Sec 112**

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1-4, 8, 9, 14 and 20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while enabling for antioxidant ingredient of rosemary extracts such as carnosic acid, carnosol, rosmanol, rosmadial or rosmarinic acid and mixtures does not reasonably provide enablement for all natural antioxidants in claim 1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make/use the invention commensurate in scope with the claim.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C., first paragraph, have been described in *In re Wands*, 8USPQ2d 1400 (Fed. Cir. 1988). Among these factors are: (a) the nature of the invention; (b) the state of the prior art; (c) the relative skill of those in the art; (d) the predictability of the art; (e) the breadth of the claims; (f) the amount of direction or guidance presented (g) the presence or absence of working examples; and (h) the quantity of experimentation necessary.

(a) the nature of the invention: the claims are drawn toward an invention for preventing or diminishing loss of color in food, fragrances and flavor compositions.

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(b) the state of the prior art: the use of natural anti-oxidants for preventing off-flavor and off odor and for stabilization of fragrance and flavor compositions is generally well known in the art.

(c) the relative skill of those in the art: the relative skill of those practicing the art of stabilizing color in fragrance and flavor compositions is not high.

(e) the breadth of the claim: the claims for the use of all natural antioxidants for stabilizing color or preventing color deterioration in fragrance or flavor compositions is too broad in that natural antioxidants from extracts of the family Labiatae are specified in the dependent claims.

However, in the independent claim 1, the claim is directed toward the use of “natural antioxidants”, and as such, giving the broadest interpretation to the claims, gives the examiner the basis to conclude that applicant’s claims are incorrectly directed toward a scope broader than that supported in the specification.

(f) the amount of direction or guidance presented: In the specification (e.g. pages 7-8) applicant has provided examples of the use of rosemary extract for stabilizing flavor compositions. No additional guidance for the use of other natural antioxidants is provided.

(g) the presence or absence of working examples: applicant has provided only one working example of how the flavor composition is stabilized by rosemary extract.

(h) the quantity of experimentation necessary: given the state of the art in the field, it will not require one of ordinary skill undue experimentation to provide working examples and guidance as how other natural anti-oxidants can stabilize color in fragrance and flavor compositions.

### **Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, are rejected under 35 USC 102(b) as anticipated by Chang et al (US 3, 950, 266).

The claims are directed toward the use of sufficient amount of natural antioxidant for stabilizing fragrance or flavor compositions against color degradation, wherein the natural antioxidant is substantially inert with respect to the fragrance or flavor compound. The claims are also drawn toward the source of the natural antioxidant as being an extract of a member of Labiatae or an active antioxidant ingredient thereof and wherein the member of Labiatae is rosemary. The claims are further drawn toward the antioxidant ingredient of rosemary extract as carnosic acid or rosmarinic acid or mixture thereof, the fragrance compound is citral or borneol and the claims are also directed toward a method of stabilizing fragrance or flavor composition using effective amount of fragrance compound, flavor compound or mixture thereof and natural antioxidant in a composition wherein there is suitable carrier (e.g. food, cosmetic product, prepared food, meat etc).

As in applicant's claim 1, Chang et al (Patent '266) teaches natural antioxidant stabilizing flavor composition and preventing deterioration of oils and fats in foods products (abstract, col 12, lin 15-20 and table 7).

As in claim 2-4, the natural antioxidant is from the herb rosemary extract (col 4, lin 25-30), generally known in the art to be from the Labiatae family

Claims 1-4 are anticipated by Patent '266.

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3. Claims 1, 2, 3, 6, 7 and 8 are rejected under 35 USC 102(b) as being anticipated by Tood et al (US 5, 0789, 016).

Tood et al teaches (Patent '016) teaches effective color stabilization in carotenoid compositions-- color-stabilized annatto, tomato, carrot compositions and Labiatae or tea extract (source of natural antioxidant) are employed; the teaching in Patent '016 reads on applicant's claims in that as in claim 1, Patent teaches fragrance or flavor composition with natural antioxidant and enhancement of color stabilization (abstract, col 16, lin 40-65).

As in claim 2, Patent '016 teaches Labiatae antioxidant (col 3, lin 67, col 5, lin 25; col 7, lin 15 and col 12, lin 35-55).

Patent '016 teaches rosemary as the family member of Labiatae (applicant's claim 3; col 7, lin 15 and lin 60).

Therefore claims 1, 2, 3, 6, 7 and 8 are anticipated by Patent '016.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-9 are rejected under 35 USC 102(e) as being anticipated by Bank et al (US 6, 306, 450, filed June 23, 1998).

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Bank et al (Patent '450) teaches prevention of the development of off-flavor and off odors in storage-stable, citrus compositions by plant extract (Labiatae family) –abstract and col 5; lin 1-5, col 9, lin 50 reads on applicant's claims 1-3.

Patent '450 teaches the natural antioxidant as obtained from rosemary extract to be rosmarinic acid (col 5, lin 55, col 7, lin 15-20 and col 8, lin 25-30); directly reading on applicant's claims 1-4.

As in applicant's claim 5, Patent '450 teaches citral as the flavoring agent in the composition (abstract, col 4, lin 30-35).

As in applicant's claim 6-9, Patent '450 teaches a method of stabilizing flavor composition using plant extract citral (col 8, lin 65 continuing to col 9, lin 1-20), from Labiatae plant family (col 5, lin 1-10).

Claims 1-9 are anticipated by Patent '405.

### **Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-22 are rejected under 35 U.S.C. under 35 U.S.C. 103(a) as being unpatentable over the combination of Chang et al (US 3, 950, 266), Todd et al (US 5, 079, 016) and Bank et al (US 6, 306, 450).

8. Applicant's claims 1-9 are discussed in the above paragraphs. In addition, the remaining claims are directed toward a method of using a fragrance or flavor composition, effective amount



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of natural antioxidant and a suitable carrier in a food or cosmetic product. In order to prevent color deterioration, wherein the fragrance compound is citral, the natural antioxidant is rosmarinic acid.

9. As discussed, Chang et al (Patent '266) discloses natural antioxidant stabilizing flavor composition and preventing deterioration of oils and fats in foods products (abstract, col 12, lin 15-20 and table 7). Patent '266 discloses that the natural antioxidant is from the herb rosemary extract (col 4, lin 25-30), generally known in the art to be from the Labiatae family. Patent '266 discloses that foods that have been deep fried from rosemary have better stability than food fried with oils with no antioxidant (col 12, lin 10-25) and that rosemary antioxidant decreases the development of undesirable fishy odor in oil (rancidity; col 13, lin 15). Patent '266 did not disclose the use of citral as the fragrance compound or the use of manufactured food product, cosmetic or prepared food, seasoning or flavoring blend as the carrier in addition to oils.

Tood et al teaches (Patent '016) discloses effective color stabilization in carotenoid compositions-- color-stabilized annatto, tomato, carrot compositions and Labiatae or tea extract (source of natural antioxidant) are employed; the teaching in Patent '016 reads on applicant's claims in that as in claim1, Patent '016 discloses fragrance or flavor composition with natural antioxidant and enhancement of color stabilization (abstract, col 16, lin 40-65). Patent '016 discloses Labiatae antioxidant (col 3, lin 67, col 5, lin 25; col 7, lin 15 and col 12, lin 35-55). Patent '016 discloses the stabilization of tomato juice by rosemary extract (col 13, lin 5-40). Patent '016 does not disclose the specific chemical anti-oxidant ingredient in the rosemary extract as rosmarinic acid.



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Bank et al (Patent '450) discloses the prevention of the development of off-flavor and off odors in storage-stable, citrus compositions by plant extract (Labiatae family) –abstract and col 5; lin 1-5, col 9, lin 5-35). Patent '450 discloses the natural antioxidant as obtained from rosemary extract to be rosmarinic acid (col 5, lin 55, col 7, lin 15-20 and col 8, lin 25-30); directly reading on applicant's claims 1-4. Patent '450 discloses citral as the flavoring agent in the composition (abstract, col 4, lin 30-35). Patent '450 a method of stabilizing flavor composition using plant extract citral (col 8, lin 65 continuing to col 9, lin 1-20), from Labiatae plant family (col 5, lin 1-10).

10. One of ordinary skill in the art would be motivated to prepare an anti-oxidant fragrance or flavor composition wherein the color deterioration is stabilized by the use of a natural antioxidant from rosemary extract in sufficient amount as described in prior art cited (Patent '266, Patent 016 or Patent '450). One of ordinary skill would expect to obtain fragrance or food composition with appealing characteristics such as longer shelf or storage life without unpleasant rancid, off-flavor, off-odor (and loss of taste in case of foods) due antioxidant action of the ingredients from the rosemary extract. Therefore the invention as a whole would have been prima facie obvious to one of ordinary skill at the time the invention was made.

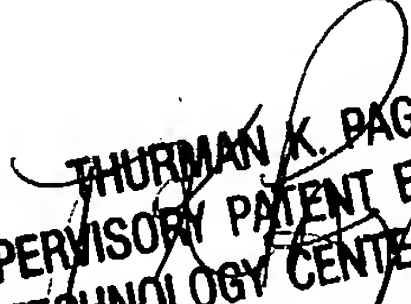
### Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Retford Berko** whose telephone number is 703-305-4442. The examiner can normally be reached on M-F from 8.00 am to 5.30 pm

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Thurman K Page**, can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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